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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,445	12/04/2001	Eiji Komatsu	32014-176297	9186

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EXAMINER	
RIVERO, MINERVA	

ART UNIT	PAPER NUMBER
2655	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/000,445	KOMATSU, EIJI	
	Examiner	Art Unit	
	Minerva Rivero	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *1/11/05*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Responding to the Office Action mailed 10/29/2004, in the Remarks filed on 1/11/2005, Applicant amended the specification submitted 12/04/2001. Furthermore, Applicant amended claims 1 and 3-5, submitted arguments to traverse the rejection of claims 1-6 and added claims 7-14.

Response to Arguments

2. Applicant's arguments filed 1/11/2005 have been fully considered but they are not persuasive.

3. Regarding claims 1-6, Applicant argues that Norton *et al.* combine upper and lower interactive tasks without any modification (p. 11).

The Examiner cannot concur with the Applicant. Norton *et al.* disclose the modification of upper and lower interactive tasks (see *successful processing of a volunteered value*, Col. 26, Line 62 – Col. 27, Line 2; *answering questions out of sequence*, Col. 30, Lines 30-37; *the Dialog Manager is a flexible processor of information flow*, Col. 30, 45-50). The *Dialog Manager* disclosed by Norton *et al.* has

the capability of answering questions that are out of sequence in response to a user's volunteered speech input (an input that does not correspond to the *role-set* the user was prompted about). The *Dialog Manager* acknowledges and processes the volunteered input according to a *role-set* the volunteer input may correspond to, which in this case involves filling a *role-set* field with the volunteered value(s). Thus, the *Dialog Manager* of Norton *et al.* modifies an interactive task sequence.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Norton *et al.* (US Patent 6,510,411).

6. Regarding claim 1, Norton *et al.* disclose an interactive speech interface unit comprising:

speech recognition means for recognizing input speech of user utterance and converting the recognized input speech into a character string (Col. 30, Lines 12-15);

input statement means for analyzing the character string and converting the analyzed character string into semantic representation (Natural Language Interpreter, Col. 30, Lines 15-18);

interactive control means for controlling flow of an interactive status and accessing an application (*Dialog Manager*, Col. 30, Lines 45-50);

output statement means for generating an intermediate language to be outputted to the user (*text-to-speech hardware*, Col. 30, Lines 18-23) and

application interface means for accessing the application using the semantic representation outputted from the interactive control means (*Dialog Manager*, Col. 5, Lines 20-25);

wherein the interactive control means puts series of interactive sequences having calling relations together in a plurality of interactive tasks in association with relations and includes an interactive task hierarchical database for storing the interactive tasks in a hierarchical structure (*tree*, Col. 3, Lines 32-48; Fig. 2B; Col. 31, Lines 2-8).

7. Regarding claim 2, Norton *et al.* disclose

wherein lower interactive tasks in the hierarchical structure are prepared to include all sub-interactive sequences which are needed for an upper interactive task (Col. 4, Lines 55-59; Fig. 2A).

8. Regarding claim 3, Norton *et al.* disclose

an interactive task chaining means for extracting an upper/lower chain of the interactive tasks during execution of a dialog and dynamically switching interactive sequences (*see successful processing of a volunteered value*, Col 26, Line 62 – Col. 27, Line 2; Col. 30, Lines 30-37). [The disclosed system is capable of dynamically switching sequences (i.e. during run-time) or tasks if the user has submitted a value that said system did not expect or request at the particular state of the sequence.]

9. Regarding claim 4, Norton *et al.* disclose wherein the interactive control means further comprises:

a keyword/bookmark catalog interactive control sequence storage means (*task model*, Col. 3, Lines 28-34; Fig. 1, element 180)

a keyword/bookmark storage means (*name*, Col. 8, Lines 19-31);

a user interactive sequence catalog interactive sequence storage means (Col. 3, Lines 28-34; Fig. 1, element 180; Fig. 4; Col. 14, Lines 22-35) and

a user interactive sequence storage means, whereby catalog functions of the interactive sequence by a user are added so as to change flow of a dialog by the user (Col. 30, Lines 45-50).

10. Regarding claim 5, Norton *et al.* further disclose

wherein the interactive control means receives semantic representation including

recognized character string from the input statement analysis means, deciding as to whether a keyword corresponding to a present interactive status is included in the recognized character string (*speech recognizer*, Col. 30, Lines 12-23; *'side order'*, Col. 9, Line 2; Col. 16, Lines 56-59).[The user is able to define a task (set of sequences) as shown in Fig. 4. Such task will be characterized by a name (*keyword*).]

11. Regarding claim 6, Norton *et al.* disclose

wherein the switching of the interactive sequences is implemented by describing and rewriting the interactive sequence as an action of an interactive procedure (Col. 30, Lines 30-37; *successful processing of a volunteered value*, Col. 26, Line 62 – Col. 27, Line 2).

12. Regarding claim 7, Norton *et al.* disclose an interactive speech interface system comprising:

a speech recognition part receiving speech from a user, the speech recognition part converting the input speech into a character string (Col. 30, Lines 12-15);

an analysis part coupled to the speech recognition part, the analysis part analyzing the character string received from the speech recognition part and converting the received character string into a semantic representation (*Natural Language Interpreter*, Col. 30, Lines 15-18);

an interactive task hierarchical database storing a plurality of interactive tasks each of which includes an interactive sequence in a hierarchical structure so that the

interactive tasks include an upper interactive task and a lower interactive task (Col. 5, Lines 37-43; Figs. 2A-2C and 3A-3B; Col. 3,Lines 27-34);

an interactive sequence memory storing the interactive sequence (Col. 3, Lines 27-34);

an interactive controller coupled to the analysis part, the interactive task hierarchical database and the interactive sequence memory, the interactive controller providing an interactive task in response to the semantic representation, modifying the interactive sequence in the upper interactive task of the interactive task in response to the lower interactive task of the interactive task, and providing the lower interactive task with the modified interactive sequence (*the Dialog Manager is a flexible processor of information flow*, Col. 30, 45-50; *successful processing of a volunteered value*, Col. 26, Line 62 – Col. 27, Line 2; *answering questions out of sequence*, Col. 30, Lines 30-37);

an output statement generation part coupled to the interactive controller, the output statement generation part generating an intermediate language in response to the interactive task provided by the interactive controller (*Dialog Manager outputs an acknowledgement statement*, Col. 26, Line 62 – Col. 27, Line 2); and

a speech generator coupled to the output statement generation part, the speech generator converting the intermediate language into speech and outputting the speech (*Dialog Manager outputs an utterance acknowledgment statement*, Col. 26, Line 62 – Col. 27, Line 2).

13. Regarding claim 8, Norton *et al.* disclose a speech recognition database coupled to the speech recognition part, the speech recognition database storing information used for the speech recognition (*speech recognizer and Natural Language Interpreter*, Col. 30, Lines 12-18).

14. Regarding claim 9, Norton *et al.* disclose an input statement analysis database coupled to the analysis part, the input statement analysis database storing information used for the analysis of the character string (*Natural Language Interpreter*, Col. 30, Lines 15-18).

15. Regarding claim 10, Norton *et al.* disclose an output statement analysis database coupled to the output statement generation part, the output statement analysis database storing information used for the generation of the intermediate language (*text-to-speech hardware or pre-recorded sound files*, Col. 30, Lines 12-27).

16. Regarding claim 11, Norton *et al.* disclose

an application receiving a command and providing a result in response to a treatment of the application (*successful processing of a volunteered value*, Col. 26, Line 62 – Col. 27, Line 2); and

an application interface part coupled between the interactive controller and the application, the application interface part providing the command to the application in response to the semantic representation delivered from the interactive controller and

converting the result provided by the application into the semantic representation (*Natural Language Interpreter*, Col. 30, Lines 15-23; *a role-set is accessed and filled, text-to-speech hardware*, Col. 30, Lines 12-27).

17. Regarding claim 12, Norton *et al.* disclose an interactive task chain part coupled between the interactive controller and the interactive task hierarchical database, the interactive task chain part fetching a chain of the interactive tasks delivered from the interactive task hierarchical database and replacing the interactive tasks (*replacing one roleset for another*, Col. 26, Line 62 – Col. 27, Line 2).

18. Regarding claim 13, Norton *et al.* disclose

a keyword memory coupled to the interactive controller for storing a keyword (*name*, Col. 8, Lines 19-31);

and

a keyword registration interactive sequence memory coupled to the interactive controller for storing an interactive sequence for registration of the keyword (*task model*, Col. 3, Lines 28-34; Fig. 1, element 180).

19. Regarding claim 14, Norton *et al.* disclose

a bookmark memory coupled to the interactive controller for storing a bookmark (*name*, Col. 8, Lines 19-31); and

a bookmark registration interactive sequence memory coupled to the interactive controller for storing an interactive sequence for registration of the bookmark (*task model*, Col. 3, Lines 28-34; Fig. 1, element 180).

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minerva Rivero whose telephone number is (571) 272-7626. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Ivars Smits can be reached on (571) 272-7628. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MR 6/22/2005

TĀLIVALDIS IVARS SMITS
PRIMARY EXAMINER